SOUTHLAND™

# Operator's Manual
# TRIMMER / BRUSH CUTTER
# 30cc, 2 Cycle

**MODEL Nos. S-HBR-3017-SBEZ-E**
**S-HBR-3017-SBEZ**

**For Occasional Use Only**

## Look inside for:





**IMPORTANT:**
Thank you for purchasing this Southland™ Trimmer / Brush Cutter.
This manual provides complete instructions for safely operating, and maintaining your Trimmer / Brush Cutter. Read and save these instructions. Refer to this manual each time before using your Trimmer / Brush Cutter.

**Record the following for future reference:**
**Mfg. Date Code : ________________**
**Date of Purchase: Attach a copy of your sales receipt.**
**Consumer Toll Free Number: 1-800-737-2112**

**Refer to the website for electronic manual and parts book.**
**www.gardnerinc.com**

**⚠ WARNING**

This product contains one or more chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. Wash hands after handling.

If you have a question or problem...
**CALL TOLL FREE: 1-800-737-2112**

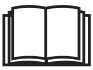
**KEEP THIS MANUAL FOR FUTURE REFERENCE**


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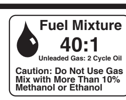
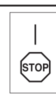
# Safety Definitions

**• Save all instructions**

## Safety Warning Symbols:

| | |
|---|---|
|  | Indicates Warning. |
|  | Read these instructions carefully. |
|  | Always wear eye protection that meets or exceeds the requirements of ANSI Z87.1. Wear hearing protection. Wear breathing protection. |
|  | Wear safety footwear. |
|  | Wear safety gloves. |
|  | Be aware of the danger of Blade Thrust or Kick Back. Blade Thrust and Kick Back may occur when the spinning blade contacts an object that it does not immediately cut. |
|   | Keep all by-standers at least 50 ft. (15 m) away. |
|  | This equipment can throw small objects at high speed causing personal injury. Inspect area where used and remove all foreign objects. |
|  | Keep all parts of your body away from the rotating trimmer lines/ brush cutter blades. |
|  | Explosive material. |
|  | Extremely hot surface. Do not touch a hot muffler, gear box or cylinder, you may get burned. These parts get extremely hot from operation and remain hot for a short time after the unit is turned off. |

## Control and Operating Symbols:

| | |
|---|---|
|   | **Choke Control:** Cold Start<br>Run/Warm Start |
|   | **Fuel Primer:** Press 6 times. |
|   | **Fuel Mixture:** **40:1** (Unleaded Gas : 2 Cycle Oil) |
|   | **Ignition Switch:** ON<br>OFF |

The information listed below should be read and understood by the operator. We utilize the symbols below to allow the reader to recognize important information about their safety.

| | |
|---|---|
| **⚠ DANGER** | Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury. |
| **⚠ WARNING** | Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury. |
| **⚠ CAUTION** | Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. |

# Important Safety Information

**• Save all instructions**

## Before Operating Trimmer / Brush Cutter

**READ AND UNDERSTAND ALL INSTRUCTIONS BEFORE OPERATING Trimmer / Brush Cutter.**

**⚠ WARNING**

Read and follow all warnings and safety instructions. Failure to do so can result in serious injury to you or bystanders.

1. Avoid Dangerous Environments
    a. Do not operate Trimmer / Brush Cutter while under the influence of alcohol, medications, or drugs.
    b. Do not operate Trimmer / Brush Cutter when you are tired.
    c. Do not use this Trimmer / Brush Cutter if you are mentally or physically unable to operate safely.
2. Inspect Trimmer / Brush Cutter for damaged parts, and make sure all fasteners and guards are in place and secure. Replace any damaged parts.
3. The handles must be mounted in accordance with the Operators Manual.
4. Use only 0.080 inch (2 mm) diameter flexible, nonmetallic line with this Trimmer.

**⚠ DANGER**

Never use this Trimmer / Brush Cutter with other accessories not specifically approved for use in this manual. Never use alternative cutting members such as wire or wire-rope, which can break off and become a dangerous projectile.

5. Dress properly when operating Trimmer / Brush Cutter.
    a. Always wear heavy long pants, boots, gloves, and a long-sleeve shirt.
    b. Do not wear loose clothing or jewelry that can get caught in the moving parts of the Trimmer / Brush Cutter.
    c. Always wear gloves and substantial foot wear when working outside.
    d. Always wear protective hair covering to contain long hair.
6. Always wear a face or dust mask if operation is dusty.
7. Always wear eye protection that meets or exceeds the requirements of ANSI Z87.1.
8. Always wear hearing protection which meets or exceeds ANSI standards.
9. Thoroughly inspect the area where the Trimmer / Brush Cutter is to be used and remove all foreign objects.

**⚠ WARNING**

Your equipment can throw small objects at high speed causing personal injury or property damage.

## While Operating Trimmer / Brush Cutter

1. Always wear shoulder harness when operating the trimmer / brush cutter. Maintain a firm grip on the handle while cutting. Keep the blade / string away from your body and below waist level.
2. Stay alert. Use common sense. Watch what you are doing.
3. Do not operate Trimmer / Brush Cutter if it is damaged or not securely and fully assembled.
4. Only well instructed adults should operate Trimmer / Brush Cutter. Never allow children to operate Trimmer / Brush Cutter.
5. Keep children away. Keep all bystanders at least 50 ft (15 m) away.
6. This Trimmer / Brush Cutter is only intended for trimming, scalping, and mowing. Do not use Trimmer / Brush Cutter for any job except that for which it is intended. Do not use for edging, pruning or hedge trimming. Severe personal injury to yourself or others can result.
7. The trimmer line / Blade may be spinning during carburetor adjustments. Make carburetor adjustments with lower end supported to prevent Trimmer line / Blade from contacting any object.
8. Maintain your balance and proper footing at all times. Do not overreach.
9. Keep rotating trimmer head / Blade below waist level. Keep all parts of your body away from cutting area, the rotating trimmer lines / Blade and hot surfaces.

# Important Safety Information (Continued)

**• Save all instructions**

## While Operating Trimmer / Brush Cutter

10. Hold the unit firmly with both hands.

11. Always keep engine on the right hand side of your body.

12. Always use the Trimmer / Brush Cutter in a sweeping motion from your right to your left. Cutting on left side and front of the trimmer / blade guard will throw debris away from you.

13. Stay extreme caution when using the blade with this unit. Blade thrust or Kick Back may occur when the spinning blade contacts an object that it does not immediately cut. A blade thrust can be violent enough to cause the unit and/or operator to be propelled in any direction, and possibly lose control of the unit. Blade thrust can occur without warning if the blade snags, stalls or binds. Blade thrust is more likely to occur in areas where it is difficult to see the material being cut.

14. An improper or dull blade can cause serious personal injury. Blades must be sharp. Discard blades that are bent, warped, cracked, broken or damaged in any way. Do not sharpen the cutting blade. Sharpening blade can cause the blade tip to break off while in use, and can result in severe personal injury to you or bystanders.

15. Use only the manufacturer's replacement blade intended to this Brushcutter. Do not use any other blade. To install any other brand blade to this brush cutter can result in serious personal injury.

16. Do not force Trimmer / Brush Cutter. It will do the job better and with less likelihood of a risk of injury at the rate for which it was designed.

17. After turning the unit off, make sure the trimmer line / cutting blade has stopped before the unit is set down.

18. A coasting blade can cause injury while it continues to spin after the engine is stopped or throttle lever is released. Maintain proper control until the blade has completely stopped rotating.

19. Never cut with the String Trimmer Head or Blade located 30 inch or more above the ground.

### ⚠ DANGER

Never start or run the unit inside a closed room or building; breathing exhaust fumes can kill.

### ⚠ WARNING

Never use the blade or string cut any material over 1/2' inch diameter. The blade is designed for cutting thicker weeds or pulpy stalks. Do not use for any other purpose. Never use the blade to cut woody brush.

### ⚠ CAUTION

Prolonged exposure to vibrations through use of gasoline powered hand tools could cause blood vessel or nerve damage in fingers, hands, and joints of people prone to circulation disorders or abnormal swellings. Extensive use in cold weather has been linked to blood vessel damage in otherwise healthy people. If symptoms occur such as numbness, pain, loss of strength, change in skin color or texture, or loss of feeling in the fingers, hands, or joints, discontinue the use of this tool and seek medical attention.

## Fuel Safety

1. Mix and pour fuel outdoors WHERE THERE ARE NO SPARKS OR FLAMES.
2. Use a container approved for gasoline.
3. Do not smoke or allow smoking near fuel or the Trimmer / Brush Cutter.
4. Avoid spilling fuel or oil. Wipe up all fuel spills.
5. Move at least 10 feet (3 meters) away from fueling site before starting engine.
6. Stop engine and allow to cool before removing fuel cap. Remove fuel cap slowly.

# Important Safety Information (Continued)

**• Save all instructions**

## Maintenance & Storage of Trimmer / Brush Cutter

1. Disconnect the spark plug before performing maintenance.

2. Maintain Trimmer / Brush Cutter with care. Inspect Trimmer / Brush Cutter periodically. If Trimmer / Brush Cutter is not working properly or damaged, have it repaired by a qualified service center.

3. Check for misalignment of moving parts, binding of moving parts, broken parts, mounting, and any other condition that may affect its operation.

4. Keep guards in place and in working order.

5. A guard or other part that is damaged should be properly repaired or replaced by a qualified service center.

6. Use only genuine Southland™ replacement parts and accessories. Use of any non-Southland™ parts or accessories could lead to injury, damage to the unit, and will void your warranty.

7. Do not remove or modify any parts. Removing or modifying parts could lead to injury, damage the Trimmer / Brush Cutter and will void the warranty.

8. Keep handles dry, clean, and free from oil and grease.

9. Allow engine to cool and empty the fuel tank before storing or transporting in vehicle. Use up remaining fuel in the carburetor by starting the engine and letting it run until it stops.

10. When not in use, store Trimmer / Brush Cutter indoors in a dry location. Store Trimmer / Brush Cutter above the reach of children or in a locked area out of the reach of children.

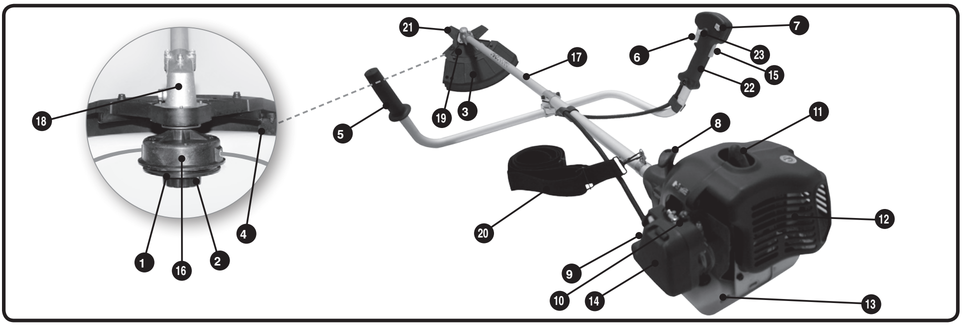
11. Store unit and fuel in area where fuel vapors cannot reach sparks or open flames from water heaters, electric motors or switches, furnaces, etc.

# Product Specifications

**• Save all instructions**

| | |
|---|---|
| Engine | 30 cc, 2 cycle |
| Cutting Diameter | 17 in. (432 mm) |
| Line Diameter | 0.080 in. (2 mm) |
| Spool Type | Bump-Feed, Twin-Line |
| Fuel Tank Capacity | 20 oz (600 ml) |
| Fuel Type | Unleaded Gasoline – 87 Octane or higher |
| 2-Cycle Oil Type | 2-Cycle Oil that meets or exceeds JASO – FC Specifications |
| Fuel Mixture | 40:1 (Gasoline: 2-Cycle Oil) |
| Spark Plug | NGK - BPMR7A<br>CHAMPION - CJ7Y<br>or equivalent |
| Net Weight | 15.2 lbs (6.9 kg) |

# Parts & Features




| | | | | | |
|---|---|---|---|---|---|
| 1. | Trimmer Head Assembly | 9. | Choke | 17. | Shaft |
| 2. | Bump Knob | 10. | Fuel Primer Bulb | 18. | Gear Head |
| 3. | Trimmer Guard | 11. | Spark Plug | 19. | Blade Guard |
| 4. | Trimmer Line Knife | 12. | Muffler | 20. | Shoulder Harness |
| 5. | Cow Bar Handle | 13. | Fuel Tank | 21. | Cutting Blade |
| 6. | Throttle Lever | 14. | Air Filter Cover | 22. | Joystick Throttle Control |
| 7. | On/Off Ignition Switch | 15. | Safety Lever | 23. | Throttle Lock |
| 8. | Recoil Starter Handle | 16. | Spool Housing | | |

# Assembly

**If you need assistance or find any parts missing, CALL TOLL FREE: 1-800–737-2112**

## Parts Included With The Trimmer / Brush Cutter

• Cow Bar Handle with bolts
• Cutting Blade
• Trimmer Head Assembly
• Brush Cutter Guard
• Expandable Trimmer Guard with bolt and nut
• Handle Grip
• M10 Wrench
• Spark Plug Wrench
• Hex Key Wrench
• Star Drive Key
• Shoulder Harness
• 40:1 2-Cycle Engine Oil (3.2 fl. oz.)
• Operator's Manual

**⚠ WARNING**

Do not operate Trimmer / Brush Cutter if it is damaged or not securely and fully assembled.

## Tools Needed For Assembly

• 10 mm wrench or adjustable wrench.

# Assembly (Continued)

**• Save all instructions**

## A To Assemble Brush Cutter Guard and Cutting Blade:

1. Insert the Star Drive Key through the slot in the Flanged Spacer and Gear Head, and use the Spark Plug Wrench provided to remove the Blade Nut by turning clockwise. (see Fig. 1) Remove the Blade Nut, Cupped Washer, and Flanged Spacer.

2. Use the Star Drive Key provided, Remove the 3 screws from Gear Head at the end of Shaft (see Fig. 2).

3. Install the 3 screws through the Blade Guard into the Gear Head (see Fig. 3). Tighten the screws securely with M10 wrench and Start Drive Key.

4. Put back on the Flanged Spacer over the Gear Head shaft, and install the Cutting Blade, making sure the raised hub of the Flanged Spacer goes through the hole in the Cutting Blade. (see Fig. 4)

5. Install the Cupped Washer with the raised center away from the Cutting Blade. (see Fig. 4)

6. Place the Blade Nut onto the Gear Head shaft.

7. Insert the Star Drive Key through the slot in the Flanged Spacer and Gear Head (see Fig. 5).

8. Install the Blade Nut by turning it counterclockwise. Tighten the blade nut securely and torque to 190 lbs. in. minimum.

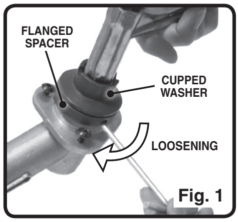
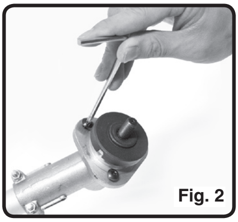


Fig. 1


Fig. 2

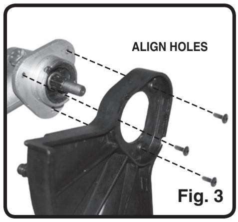


Fig. 3

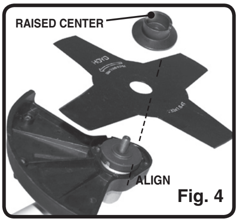


Fig. 4

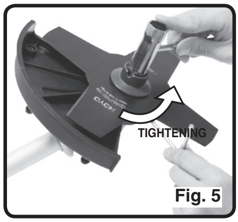


Fig. 5

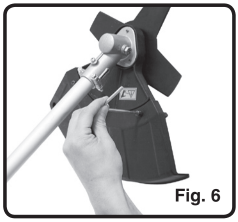
## B To Assemble Expandable Trimmer Guard:

1. Use the Star Key Wrench provided, attach the Expandable Trimmer Guard to the Brush Cutter Guard, and tighten the 3 screws securely. (see Fig. 6)

2. Remove protective cover from trimmer line knife.

**⚠ CAUTION**

The trimmer line knife is sharp and can cut you (see Fig. 7).


Fig. 6

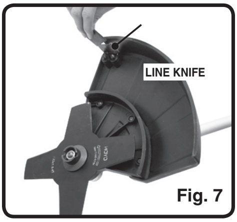


Fig. 7

# Assembly (Continued)

**• Save all instructions**

## C To Install Cow Bar Handle:

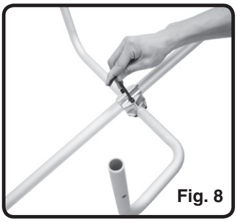
1. Attach the Handle to the Shaft, and use the Hex Key Wrench to tighten the 2 bolts in the front. (See Fig. 8)

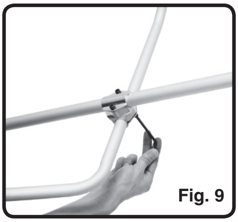
2. To adjust the Handle to desired position, tighten the 2 bolts in the back until handle is secure. (see Fig. 9)

3. Put on the Handle Grip on the left. (see Fig. 10)

4. Place the Joystick Control to right of the Handle by installing the bolt through the hole in the handle. (see Fig. 11)

5. Use the 2 clips on the Throttle Cable to adjust and attach the Throttle Cable to the Shaft and Handle. (see Fig.12)


Fig. 8


Fig. 9

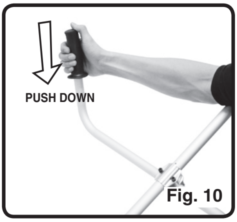
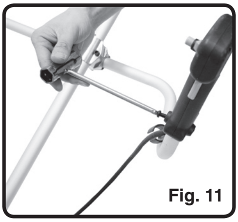


Fig. 10


Fig. 11

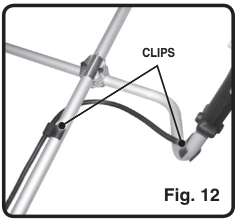


Fig. 12

## D To Attach Shoulder Harness:

This unit is equipped with an adjustable shoulder harness for your comfort.

**⚠ WARNING**

Always wear shoulder harness when operating the trimmer / brush cutter. Maintain a firm grip on the handle while cutting.

Attach shoulder harness to clip on the shaft, and adjust harness length so that the weight of the unit can be comfortably supported during use (see Fig. 13).


Fig. 13

# Operation

**• Save all instructions**

## A Before Starting Engine:

**Mixing Fuel / 2-Cycle Oil**

**⚠ WARNING**

Do not smoke or allow smoking near fuel or the Trimmer / Brush Cutter. Mix and pour fuel outdoors WHERE THERE ARE NO SPARKS OR FLAMES.

The 2-cycle engine on your Trimmer / Brush Cutter requires that fuel and
2-cycle engine oil be pre-mixed before adding to the Trimmer / Brush Cutter's fuel tank. To mix the fuel/ 2-cycle oil:

1. Use fresh unleaded gasoline with an octane rating of 87 or higher. Do not use gasoline containing ethanol or methanol.

**⚠ CAUTION**

Use of gasoline containing ethanol or methanol can damage Trimmer / Brush Cutter.

2. Always use 2-cycle oil that meets or exceeds JASO – FC specifications and is intended for mixing at a fuel/oil ratio of 40:1.

3. Do not use automotive or 2-cycle marine outboard oil. These will damage your Trimmer / Brush Cutter's engine and void the warranty.

4. Always mix the gasoline and 2-cycle oil in a container approved for gasoline. Never mix fuel directly in the Trimmer / Brush Cutter's fuel tank.

5. Follow instructions on 2-cycle oil container for mixing fuel. Mix gasoline and 2-cycle oil at a ratio of 40:1. A mixture with a 40:1 ratio is obtained by mixing 1 gallon (4 liters) of gasoline with 3.2 ounces of oil (95 ml). After adding oil to gasoline, shake container momentarily to ensure proper mixing.

6. Mix only enough fuel for your immediate needs. Do not store pre-mixed fuel.

7. Stop engine and allow to cool before refueling.

8. To fill the Trimmer / Brush Cutter's fuel tank with the gasoline/ oil mixture, place the Trimmer / Brush Cutter upright on the ground or on a sturdy bench and wipe and any debris from around the fuel cap.

9. Remove fuel cap slowly and use a funnel to pour the mixture into the tank, and replace the fuel cap.

10. Avoid spilling fuel or oil. Wipe up all fuel spills.

11. Move at least 10 feet (3 meters) away from fueling site before starting engine.

## B Starting Engine:

**⚠ WARNING**

Keep all parts of your body away from cutting area, the rotating Trimmer / Brush Cutter lines and hot surfaces.

**Cold Starting The Engine**

**DO NOT squeeze the throttle lever until engine starts and runs.**

1. Place the Trimmer / Brush Cutter on a flat surface.

2. Move the Ignition Switch to the "ON" position (see Fig. 14).

3. Move the Choke Lever downwards to the "COLD START" position (see Fig. 15).

4. Press the Primer Bulb slowly 6 times (see Fig. 16).

5. Pull the Recoil Starter Handle sharply until the engine starts and runs (see Fig. 17).

6. After engine starts and runs for 10-15 seconds, move choke lever to "Run/Warm Start" position.

**Note: when the weather gets cold, please allow the engine to warm up at idle for longer period of time, before engaging to RUN/WARM START position.**

**Warm Starting The Engine**

1. Place the Trimmer / Brush Cutter on a flat surface.

2. Move the Ignition Switch to the "ON" position (see Fig. 14).

3. With the choke lever in "Run/Warm Start" position, squeeze the throttle lever, pull the Recoil Starter Handle sharply until the engine starts and runs.




Fig. 14

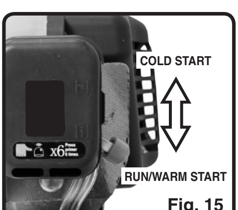



Fig. 15

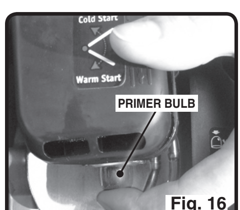



Fig. 16



Fig. 17

• **Save all instructions**

## B Starting Engine:

**Starting A Flooded Engine**

1. Place the unit on a flat surface.
2. Move the Ignition Switch to the "ON" position.
3. With the choke lever in "Run/Warm Start" position, squeeze and hold the Throttle Lever fully depressed and pull the starter handle repeatedly until engine starts and runs. This could require pulling the starter handle many times, depending on how badly the unit is flooded.
4. If the engine still does not start, allow the unit to sit for about 30 minutes, and repeat step 1-3.

**If the unit still doesn't start, refer to the TROUBLESHOOTING section of this manual or:**

**If you need assistance or have any questions, CALL TOLL FREE: 1-800–737-2112**

## C Stopping The Trimmer / Brush Cutter:

**⚠ CAUTION**

The trimmer line/ cutting blade will continue to rotate for a few seconds after the engine has stopped.

1. Release the Throttle Lever and allow the engine to idle for a few moments.
2. Move the Ignition Switch to the "OFF" position.

## D Engine Break-in Period:

During the first ten (10) hours of use, use the slowest engine speed which allows for effective cutting and avoid operation at high engine speeds for extended periods of time.

This will maximize the life and performance of engine of your unit. Maximum power will be achieved after the first ten (10) hours of engine operation.

## E Operating the Brush Cutter:

**⚠ WARNING**

Always wear shoulder harness when operating the trimmer / brush cutter. Maintain a firm grip on the handle while cutting.

1. Wear shoulder harness before starts the engine. (see Fig. 18)
2. Follow the instruction of "Starting Engine" on page 8.
3. After the engine starts, attach shoulder harness to clip on the shaft, and adjust harness length so that the weight of the unit can be comfortably supported during use (see Fig. 19)
4. Hold the brush cutter with you both hands on the cow bar handle. Keep a firm grip with both hands while in use. Maintain footing and balance at all time.
5. Squeeze and hold both the throttle and safety levers to start the operation.



Fig. 18

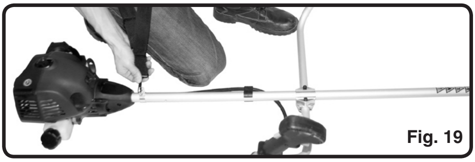


Fig. 19

**THROTTLE LOCK**

The throttle lock can be used to operate the unit without holding the throttle lever.

**To engage the throttle lock:**

1. With the throttle and safety levers squeezed, press the throttle lock to lock the throttle setting.

**To disengage the throttle lock:**

1. Squeeze the throttle and safety levers, and the throttle lock will be released.

# Operation (Continued)

**• Save all instructions**

## F Advancing Trimmer Line:

The Trimmer is most effective when the Trimmer line is advanced to full cutting width. To advance the Trimmer line:

1. Hold bottom of Trimmer Head parallel to grassy surface (see Figure 20).

2. With the engine at full throttle, firmly tap or bump the Trimmer Head on the ground.

3. Trimmer line will be advanced with each tap or bump.

4. Continue to advance Trimmer line until you reach full cutting width (i.e. when the Trimmer line is cut by the Trimmer Line Knife).

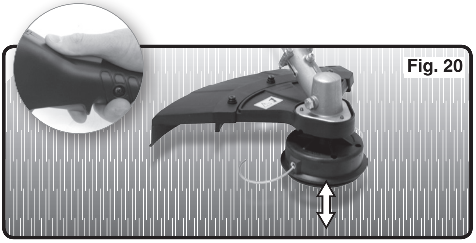


Fig. 20

## G Techniques / Applications:

**⚠ WARNING**

Thoroughly inspect the area where the Trimmer is to be used and remove all foreign objects. Your equipment can throw small objects at high speed causing personal injury or property damage.

Your Trimmer is most effective when using the tips of the Trimmer line for trimming grass and other vegetation. Do not force the Trimmer line into grass or vegetation faster than Trimmer's cutting speed permits.

Forcing the Trimmer will cause your Trimmer to be less effective, and will cause excessive wear on the Trimmer line.

To avoid damaging trees, shrubs and fences:

1. Maintain Trimmer line to the full cutting width by advancing Trimmer / Brush Cutter line as necessary.

2. Move the tips of the Trimmer line slowly into the grass or vegetation to be trimmed.

3. Use the slowest engine speed that will permit effective cutting. This will provide the greatest control of the trimming line, reduce engine noise and vibration, and extend Trimmer line life.

Use a sweeping motion from right to left (see Fig. 21a) to move the Trimmer line into the grass or vegetation to be cut. By using the trimming line on the left side and front of the Trimmer Guard, debris will be thrown away from you (see Fig. 21b).




Fig. 21a

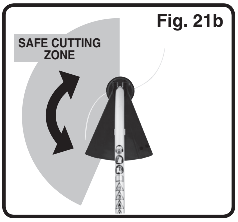



Fig. 21b

**Trimming**

Holding the Trimmer Head approximately 3 inches (76 mm) above the ground – with the Trimmer line angled down towards the grass or vegetation to be trimmed, move the Trimmer Head in a sweeping motion from right to left into the grass or vegetation (see Fig. 22).

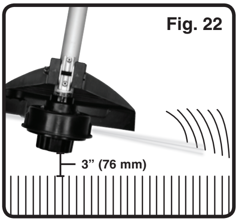



Fig. 22

**Scalping**

Scalping is a technique similar to **Trimming**, but clears all vegetation to the ground. Holding the Trimmer Head approximately 3 inches (76 mm) above the ground – with the Trimmer line angled down towards the grass or vegetation to be trimmed. Allow the Trimmer line to strike the ground where scalping is desired (see Fig. 23).

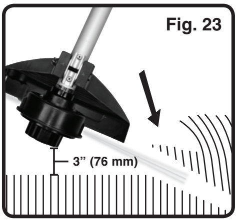



Fig. 23

**Mowing**

The Trimmer is effective in mowing areas your lawn mower cannot easily reach. Holding the Trimmer Head parallel to the ground, move the Trimmer Head in sweeping motions from right to left. Avoid the Trimmer Head contacting the ground, this may scalp the grass and damage the unit.

# Operation (Continued)

**• Save all instructions**

## H Replacing Trimmer Line:

**⚠ WARNING**

Use only 0.080 inch (2 mm) diameter flexible, nonmetallic line with this Trimmer. Other line sizes will not function properly and can cause serious injury. Never use alternative cutting members such as wire or wire-rope, which can break off and become a dangerous projectile.

1. Stop the engine.

**⚠ WARNING**

Disconnect the Spark Plug before performing maintenance except for carburetor adjustments.

2. Position the Trimmer on the ground so that the Trimmer Head Assembly is facing up.

3. Use the spanner wrench provided to loosen and remove the Bump Knob.

4. Remove spool and spool spring from the Trimmer Head Assembly, and clear any remaining Trimmer line from the spool.

5. When replacing Trimmer line only use 0.080 in. (2 mm) diameter line.

6. Cut a length of new Trimmer line 15 ft. (4.6 m) long.

7. Bend the line in the middle to form a loop of two equal lengths (see Fig. 24).

8. Hook the bend of the loop onto one of the slots in the center of the spool (see Fig. 25).

9. With your finger between the Trimmer lines of the loop, wrap the lines – keeping the lines taut with firm, constant tension - around the spool in a clockwise direction.
Make sure to keep each of the Trimmer lines on the proper side of the center divider on the spool (see Fig. 26).

10. Confirm spool spring is secured in proper position on spool (see Fig. 27).

11. While securing the Trimmer line around the spool, insert spool into the Spool Housing and insert the end of each of the Trimmer lines into opposing eyelets in the Spool Housing. Pull the Trimmer line through eyelets removing any slack in the line. The Trimmer line should extend through each eyelet approximately 4 inches (102 mm).

12. Hand tighten the Bump Knob onto the Spool by turning counter-clockwise (see Fig. 28).

13. Insert the Star Drive Key through the slot in the Flanged Spacer and Gear Head, and put the Trimmer Head Assembly onto the drive shaft of the Gear Head, and secure it by turning the Bump Knob counter-clockwise (see Fig. 28).

14. After installing new Trimmer line, start Trimmer engine and advance Trimmer line with Bump Knob until Trimmer line is trimmed at its full cutting width by the Trimmer line knife (see **F. Advancing Trimmer Line**).

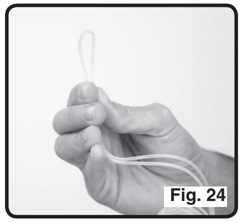


Fig. 24

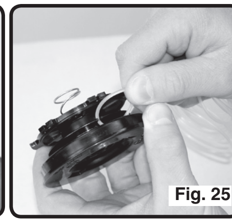


Fig. 25

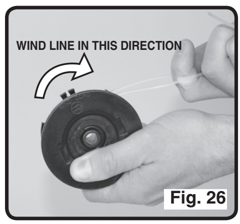



Fig. 26

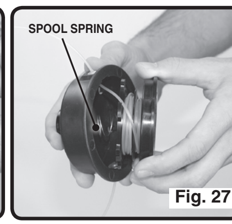



Fig. 27

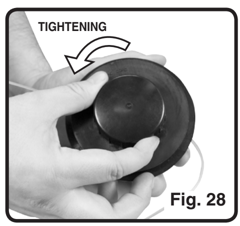



Fig. 28

# Routine Maintenance

**• Save all instructions**

**⚠ WARNING**

Disconnect the spark plug before performing maintenance.

## A Air Filter:

Accumulated debris and dust in the air filter will reduce engine performance, increase fuel consumption and increases the risk of engine damage. Clean the air filter every 5 hours of operation.

1. Before removing Air Filter Cover, brush away any loose dirt or debris on and around the filter cover.

2. To remove Air Filter Cover, press on the side tab and pull cover out (see Fig. 29).

3. Remove and clean foam filter.
   - Light surface dust can readily be removed by tapping the filter.
   - Heavy deposits should be washed out in soap and water. Squeeze out any remaining water and allow the filter to completely dry.

**⚠ WARNING**

Never clean filter in gasoline or other flammable solvents.

4. Add a drop of thin oil to the filter and replace it.

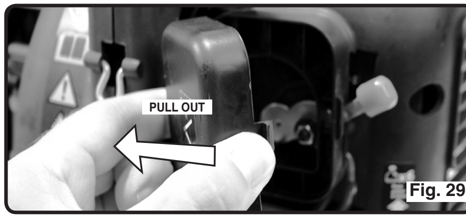



Fig. 29

## B Spark Plug:

Inspect the spark plug after every 10-15 hours of use; adjust spark plug gap and replace spark plug as necessary. Replace spark plug every year to maintain engine performance and easy starting.

To inspect or replace the Spark Plug:

1. Remove the insulated spark plug boot.

2. Use the spark plug wrench to remove the Spark Plug, by turning counter-clockwise.

3. Clean and adjust the spark plug gap to 0.024 – 0.028 in. (0.6 - 0.7mm).

4. Replace any worn plug with a recommended replacement (see **PRODUCT SPECIFICATIONS**. Clean and adjust the spark plug gap to 0.024 – 0.028 in. (0.6 - 0.7mm).

5. Install the Spark Plug finger tight in the cylinder head, then tighten firmly with the spark plug wrench.

6. Replace the insulated spark plug boot.

# Storage

1. Allow engine to cool and empty the fuel tank before storing or transporting in vehicle. Use up remaining fuel in the carburetor by starting the engine and letting it run until it stops.

2. When not in use, store Trimmer / Brush Cutter indoors in a dry location. Store Trimmer / Brush Cutter above the reach of children or in a locked area out of the reach of children.

3. Store unit and fuel in area where fuel vapors cannot reach sparks or open flames from water heaters, electric motors or switches, furnaces, etc.

4. When preparing the Trimmer / Brush Cutter for storage or when Trimmer / Brush Cutter will not be used for 30 days or more:
   a. Inspect and clean the Trimmer / Brush Cutter thoroughly.
   b. Lightly oil all external metal surfaces.
   c. Remove the spark plug, place a few drops of 2-cycle engine oil into the cylinder. Pull the recoil starter several times to distribute the oil. Replace the spark plug.
   d. Inspect and clean air filter as required.

**NOTE:** To prevent fuel gum deposits in the carburetor and fuel system, it is acceptable to use fuel stabilizer. Follow the stabilizer manufacturer's instructions. Run the engine at least 5 minutes after adding stabilizer.

# Troubleshooting

**• Save all instructions**

| **PROBLEM** | **POSSIBLE CAUSE(S)** | **SOLLUTION(S)** |
|---|---|---|
| Engine will not start. | 1. Ignition Switch in the “OFF” position.<br>2. Engine flooded.<br><br>3. Fuel Tank empty.<br>4. Spark Plug not firing.<br>5. Fuel not reaching carburetor.<br><br>6. Carburetor requires adjustment. | 1. Move ignition switch to the ON position.<br>2. See **Starting a Flooded Engine** in **OPERATION** section.<br>3. Fill tank with correct fuel mixture.<br>4. Replace Spark Plug.<br>5. Check for kinked or split fuel line; repair or replace.<br>6. Contact a qualified service center. |
| Engine will not accelerate, lacks power or stalls. | 1. Grass wrapped around Trimmer / Brush Cutter Head.<br>2. Air filter dirty.<br>3. Spark plug fouled.<br>4. Carburetor requires adjustment.<br>5. Carbon build-up on muffler outlet screen.<br>6. Compression low. | 1. Clear debris and grass from Trimmer / Brush Cutter Head.<br>2. Clean air filter.<br>3. Clean or replace plug<br>4. Contact a qualified service center.<br>5. Contact a qualified service center.<br><br>6. Contact a qualified service center. |
| Engine smokes excessively. | 1. Fuel mixture incorrect.<br><br>2. Air filter dirty.<br>3. Carburetor requires adjustment. | 1. Empty Fuel Tank and refill with correct fuel mixture.<br>2. Clean or replace air filter.<br>3. Contact a qualified service center. |
| Engine runs hot. | 1. Fuel mixture incorrect.<br><br>2. Spark Plug incorrect.<br>3. Carburetor requires adjustment.<br>4. Carbon build-up on muffler outlet screen. | 1. See **Mixing Fuel / 2-Cycle Oil** in **OPERATION** section.<br>2. Replace with correct Spark Plug.<br>3. Contact a qualified service center.<br>4. Contact a qualified service center. |
| Engine will not idle properly. | 1. Carburetor requires adjustment.<br>2. Crankshaft seals worn.<br>3. Compression low. | 1. Contact a qualified service center.<br>2. Contact a qualified service center.<br>3. Contact a qualified service center. |

# Technical Service

You may have further questions about assembling, operating, or maintaining this Trimmer / Brush Cutter. If so, you can contact our Technical Service Department at 1-800-737-2112 (English only).
You may also write to:

**METL Corporate Office - CORRESPONDENCE ONLY**
**ATTN: Technical Service – METL**
**6700 Wildlife Way**
**Long Grove, IL 60047**

**If you need assistance or have any questions, CALL TOLL FREE: 1-800–737-2112**

**When contacting the Technical Service Department, have ready:**

- Your Name
- Your Address
- Your Phone Number
- Model Number of Product
- Date of Purchase (include copy of receipt for written requests)

# Warranty

**• Save all instructions**

## A Southland™ Trimmer / Brush Cutter Limited Warranty

Always specify model number when contacting the factory.

We reserve the right to amend these specifications at any time without notice. The only warranty applicable is our standard written warranty. We make no other warranty, expressed or implied. **MAT Engine Technologies, LLC** warrants this Trimmer / Brush Cutter and any parts thereof, to be free from defects in material and workmanship for two years (90 days for reconditioned unit) from the date of first purchase from an authorized dealer, provided that the product has been properly maintained and operated in accordance with all applicable instructions. This warranty is extended only to the original retail purchaser. The bill of sales or proof of purchase must be presented at the time a claim is made under this warranty. This warranty does not cover commercial, industrial, or rental usage, nor does it apply to parts that are not in original condition because of normal wear and tear, or parts that fail or become damaged as a result of misuse, accident, lack of proper maintenance, tampering, or alteration. Travel, handling, transportation, and incidental costs associated with warranty repairs are not reimbursable under this warranty and are the responsibility of the owner. To the full extent allowed by the law of the jurisdiction that governs the sale of the product, this express warranty excludes any and all other expressed warranties and limits the duration of any and all implied warranties, including warranties of merchantability and fitness for a particular purpose to two years from the date of first purchase, and **MAT Engine Technologies, LLC's** liability is hereby limited to the purchase price of the product and **MAT Engine Technologies, LLC** shall not be liable for any other damages whatsoever including indirect, incidental, or consequential damages. Some states do not allow limitation of how long an implied warranty lasts or an exclusion or limitation of incidental or consequential damages, so the above limitation of damages may not apply to you. This warranty provides the original purchaser with specific rights.

For information regarding those rights, please consult the applicable state laws.

**METL Corporate Office - CORRESPONDENCE ONLY**
**ATTN: Technical Service – METL**
**6700 Wildlife Way**
**Long Grove, IL 60047**

## B Federal and California Emissions Control Warranty Statement

This **MAT Engine Technologies, LLC (METL)** outdoor power equipment engine complies with the emissions regulations of:

| Southland™ Model No. | Regulatory Agency |
|---|---|
| S-HBR-3017-SBEZ-E | United States Environmental Protection Agency ("U.S. EPA") |
| S-HBR-3017-SBEZ | State of California |

To the extent there is any conflict between this Emissions Control Warranty and the **METL** Limited Warranty, this Emissions Control Warranty shall apply except where the **METL** Limited Warranty may provide a longer warranty period.

Please read your warranty rights and obligations carefully. Some sections of the warranty may not apply to the specific model you purchased. Unless specifically noted otherwise, the terms below shall apply to all Southland™ products covered within this manual.

**YOUR WARRANTY RIGHTS AND OBLIGATIONS**

**State of California (Applies only to Model No. S-HBR-3017-SBEZ):**

The California Air Resources Board and **MAT Engine Technologies, LLC (METL)** are pleased to explain the emissions control system warranty on your 2010 small off-road engine (SORE). In California, new SOREs must be designed, built and equipped to meet the State's stringent anti-smog standards. **METL** must warrant the emissions control system on your SOREs for the periods of time listed below provided there has been no abuse, neglect or improper maintenance of your SOREs.

# Warranty (Continued)

**• Save all instructions**

**Other U.S States / Territories:**

In other areas of the Unites States, your outdoor power equipment engine must be designed, built and equipped so as to conform at the time of sale to U.S. EPA emissions standards for small off-road spark ignition engines at or below 19 kilowatts.

**All of the United States:**

Your emission control system may include parts such as the carburetor or fuel-injection system, fuel lines, the ignition system, and catalytic converter. Also included may be hoses, belts, clamps, connectors and other emission-related assemblies.

Where a warrantable condition exists, **METL** will repair your small off-road engine at no cost to you including diagnosis, parts and labor.

## Manufacturer's Warranty Coverage:

The emissions control system is warranted for two years. If any emissions-related part on your engine is defective, the part will be repaired or replaced by **METL**.

## Owner's Warranty Responsibilities:

• As the SORE owner, you are responsible for the performance of the required maintenance listed in your owner's manual. **METL** recommends that you retain all receipts covering maintenance on your SORE, but **METL** can not deny warranty solely for the lack of receipts or for your failure to ensure the performance of all scheduled maintenance.

• As the SORE owner, you should however be aware that **METL** may deny your warranty coverage if your SORE or a part has failed due to abuse, neglect, improper maintenance or unapproved modifications.

• You are responsible for presenting your SORE to a distribution center or service center authorized by **METL** as soon as the problem exists. The warranty repairs should be completed in a reasonable amount of time, not to exceed 30 days.

**If you have any questions regarding your warranty coverage, you should contact METL customer service:**

**If you need assistance or have any questions, CALL TOLL FREE: 1-800–737-2112**

# Warranty (Continued)

**• Save all instructions**

## Defects Warranty Coverage:

**METL** warrants to the original purchaser and each subsequent purchaser that the small off-road engine (SORE) (1) has been designed, built and equipped so as to conform with all applicable regulations; and (2) is free from defects in materials and workmanship that cause the failure of a warranted part to conform with those regulations as may be applicable to the terms and conditions stated below.

(a) The warranty period begins on the date the engine is first purchased. The warranty period is two years.

(b) Subject to certain conditions and exclusions as stated below, the warranty on emissions related parts is as follows:

(1) Any warranted part that is not scheduled for replacement as required maintenance in your **Operator's Manual** is warranted for the warranty period stated above. If the part fails during the period of warranty coverage, the part will be repaired or replaced by **METL** according to Subsection (4) below. Any such part repaired or replaced under warranty will be warranted for the remainder of the period.

(2) Any warranted part that is scheduled only for regular inspection in your **Operator's Manual** is warranted for the warranty period stated above. Any such part repaired or replaced under warranty will be warranted for the remaining warranty period.

(3) Any warranted part that is scheduled for replacement as required maintenance in your **Operator's Manual** is warranted for the period of time before the first scheduled replacement date for that part. If the part fails before the first scheduled replacement, the part will be repaired or replaced by **METL** according to Subsection (4) below. Any such part repaired or replaced under warranty will be warranted for the remainder of the period prior to the first scheduled replacement point for the part.

(4) Repair or replacement of any warranted part under the warranty provisions herein must be performed at a warranty station at no charge to the owner.

(5) Notwithstanding the provisions herein, warranty services or repair will be provided at all of our distribution centers that are franchised to service the subject engines.

(6) The engine owner must not be charged for diagnostic labor that leads to the determination that a warranted part is in fact defective, provided that such diagnostic work is performed at a warranty station.

(7) **METL** is liable for damages to other engine components proximately caused by a failure under warranty of any warranted part.

(8) Throughout the engine warranty period stated above, **METL** will maintain a supply of warranted parts sufficient to meet the expected demand for such parts.

(9) Any replacement part may be used in the performance of any warranty maintenance or repairs and must be provided without charge to the owner. Such use will not reduce the warranty obligations of **METL**.

(10) Add-on or modified parts that are not exempted by the Air Resources Board may not be used. The use of any non-exempted add-on or modified parts by the original or subsequent purchaser will be grounds for disallowing a warranty claims. **METL** will not be liable to warrant failures of warranted parts caused by the use of a non-exempted add-on or modified part.

(11) The manufacturer issuing the warranty shall provide any documents that describe that warranty procedures or policies within five working days or requested by the Air Resources Board.

# Warranty (Continued)

**• Save all instructions**

## Emission Warranty Parts List:

The repair or replacement of any warranted part otherwise eligible for warranty coverage may be excluded from such warranty coverage if **METL** demonstrates that the engine has been abused, neglected, or improperly maintained, and that such abuse, neglect, or improper maintenance was the direct cause of the need for repair or replacement of the part. That notwithstanding, any adjustment of a component that has a factory installed, and properly operating, adjustment limiting device is still eligible for warranty coverage. The following emissions warranty parts list is covered.

**(1) Fuel Metering System:**
- (a) Gasoline carburetor assembly and its internal components (if so equipped)
- (b) Fuel filter (if so equipped)
- (c) Carburetor gaskets
- (d) Fuel pump (if so equipped)

**(2) Air Induction System including:**
- (a) Intake pipe/manifold
- (b) Air cleaner

**(3) Ignition System including:**
- (a) Spark plug
- (b) Ignition module/coil

**(4) Catalytic Muffler Assembly (if so equipped) including:**
- (a) Muffler gasket
- (b) Exhaust manifold

**(5) Crankcase Breather Assembly including:**
- (a) Breather connection tube.

**(6) Miscellaneous items Used in Above Systems including:**
- (a) Switches
- (b) Hoses, belts, connectors, and assemblies.

# Warranty (Continued)

**• Save all instructions**

## C California Evaporative Emission Control Warranty Statement

**YOUR WARRANTY RIGHTS AND OBLIGATIONS**

**Applies only to Model No. S-HBR-3017-SBEZ:**

The California Air Resources Board and **METL** are pleased to explain the evaporative emission control system's warranty on your 2010 model year small off-road engine (SORE). In California, new SOREs must be designed, built and equipped to meet the State's stringent anti-smog standards. **METL** must warrant the evaporative emission control system on your SOREs for the period of time listed below provided there has been no abuse, neglect or improper maintenance of your SOREs.

Your evaporative emission control system may include parts such as: carburetors, fuel tanks, fuel lines, fuel caps, valves, canisters, filters, vapor hoses, clamps, connectors, and other associated components.

### Manufacturer's Warranty Coverage:

This evaporative emission control system is warranted for two years. If any evaporative emission-related part on your equipment is defective, the part will be repaired or replaced by **METL**.

### Owner's Warranty Responsibilities:

• As the SORE owner, you are responsible for performance of the required maintenance listed in your owner's manual. **METL** recommends that you retain all receipts covering maintenance on your SOREs, but **METL** can not deny warranty solely for the lack of receipts.

• As the SORE owner, you should however be aware that **METL** may deny you warranty coverage if your SOREs or a part have failed due to abuse, neglect, or improper maintenance or unapproved modifications.

• You are responsible for presenting your SOREs to distribution center or service center authorized by **METL** as soon as the problem exists. The warranty repairs should be completed in a reasonable amount of time, not to exceed 30 days.

**If you have any questions regarding your warranty coverage, you should contact METL customer service:**

**If you need assistance or have any questions, CALL TOLL FREE: 1-800–737-2112**

# Warranty (Continued)

**• Save all instructions**

## Defects Warranty Coverage:

(a) The warranty period begins on the date the engine is purchased.

(b) General Evaporative Emissions Warranty Coverage. The engine must be warranted to the ultimate purchaser and any subsequent owner that the evaporative emission control system when installed was:

(1) Designed, built, and equipped so as to conform with all applicable regulations; and

(2) Free from defects in materials and workmanship that causes the failure of a warranted part for a period of two years.

(c) The warranty on evaporative emissions-related parts will be interpreted as follows:

(1) Any warranted part that is not scheduled for replacement as required maintenance in the written instructions must be warranted for the warranty period defined in subsection (b) (2).
If any such part fails during the period of warrantycoverage, it must be repaired or replaced by **METL** issuing the warranty. Any such part repaired or replaced under the warranty must be warranted for a time not less than the remaining warranty period.

(2) Any warranted part that is scheduled only for regular inspection in the written instructions must be warranted for the warranty period defined in subsection (b) (2). A statement in such written instructions to the effect of "repair or replace as necessary" will not reduce the period of warranty coverage. Any such part repaired or replaced under warranty must be warranted for a time not less than the remaining warranty period.

(3) Any warranted part that is scheduled for replacement as required maintenance in the written instructions must be warranted for the period of time prior to the first scheduled replacement point for that part. If the part fails prior to the first scheduled replacement, the part must be repaired or replaced by **METL** Any such part repaired or replaced under warranty must be warranted for a time not less than the remainder of the period prior to the first scheduled replacement point for the part.

(4) Repair or replacement of any warranted part under the warranty provisions of this article must be performed at no charge to the owner at a warranty station.

(5) Notwithstanding the provisions of subsection (4) above, warranty services or repairs must be provided at distribution centers that are franchised to service the subject engines or equipment.

(6) The owner must not be charged for diagnostic labor that leads to the determination that a warranted part is in fact defective, provided that such diagnostic work is performed at a warranty station.

(7) Throughout the evaporative emission control system's warranty period set out in subsection (b) (2), **METL** issuing the warranty must maintain a supply of warranted parts sufficient to meet the expected demand for such parts.

(8) Manufacturer approved replacement parts must be used in the performance of any warranty maintenance or repairs and must be provided without charge to the owner. Such use will not reduce the warranty obligations of the manufacturer issuing the warranty.

(9) The use of any add-on or modified parts will be grounds for disallowing a warranty claim made in accordance with this article. The manufacturer issuing the warranty will not be liable under this Article to warrant failures of warranted parts caused by the use of an add-on or modified part.

(10) **METL** issuing the warranty shall provide any documents that describe the warranty procedures or policies within five working days of request by the Executive Officer.

## Evaporative Emission Warranty Parts List:

(1) Fuel Tank.